an inflatable balloon having a main body portion, a proximal portion, and a distal portion, said proximal portion and said distal portion extending from said main body portion, said distal portion of the balloon being bonded to the [outer] inner tubular member [near the distal end of the outer tubular member] and said proximal portion of the balloon being bonded to the outer tubular member [proximal to the distal portion of the balloon], said inflatable balloon being formed from a gas-permeable material;

a coupling member having a lumen extending therethrough, said coupling member being mounted on the proximal end of the outer tubular member and the lumen of the coupling member communicating with the lumen between the outer tubular member and the inner tubular member;

a syringe coupled to said coupling member for applying a liquid within the lumen of the outer tubular member; and,

at least one vent aperture for purging air from said lumen of the catheter body, said aperture extending radially through said outer tubular wall of the outer tubular member at a location proximal of the proximal portion of the inflatable balloon.

6. (Twice Amended) A balloon catheter comprising:

a catheter body including an outer tubular member having an outer tubular wall and having a lumen extending throughout the length of the outer tubular member, said outer tubular member further having a proximal end and a distal end;

said catheter body further including an inner tubular member having a proximal end, a distal end, and a lumen extending therethrough, said inner tubular member being disposed coaxially through said lumen of the outer tubular member to form a lumen between the outer tubular member and the inner tubular member;

an inflatable balloon having a main body portion, a proximal portion, and a distal portion, said proximal portion and said distal portion extending from said main body portion, said proximal portion of the balloon being bonded to the [distal end of the] outer tubular member and the distal portion of the balloon being bonded to [the distal end of] the inner tubular member, said inflatable balloon being formed from a gas-permeable material;

a coupling member having a lumen extending therethrough, said coupling member being mounted on the proximal end of the outer tubular member and the lumen of the coupling member communicating with the lumen between the outer tubular member and the inner tubular member;

a syringe coupled to said coupling member for applying a liquid within the lumen of the outer tubular member; and

at least one vent aperture for purging air from said lumen of the catheter body, said aperture extending radially through said outer tubular wall of the outer tubular member at a location proximal of the proximal end of the inflatable balloon.

11. (Twice Amended) A balloon catheter comprising:

a catheter body comprising an outer tubular member having an outer tubular wall and having a lumen extending throughout the length of the outer tubular member, said outer tubular member further having a proximal end and a distal end;

said catheter body further including an inner tubular member having a proximal end, a distal end, and a lumen extending therethrough, said inner tubular member being disposed through said lumen of the outer tubular member to form a lumen between the outer tubular member and the inner tubular member;